

CLAIMS

1. Compound that can be obtained by spray drying a suspension S containing a precipitated silica and a phosphate selected from phosphates of elements
5 from groups Ia or IIa of the periodic table of the elements and rare earth phosphates.

2. Compound according to Claim 1, characterized in that said suspension S is obtained by mixing two precursors of a phosphate selected from
10 phosphates of elements from groups Ia or IIa of the periodic table of the elements and rare earth phosphates with a suspension of precipitated silica, and by optionally disintegrating the mixture obtained.

3. Compound according to Claim 2,
15 characterized in that said precipitated silica suspension is obtained by disintegrating a filter cake from the reaction for precipitating said silica.

4. Compound according to Claim 2 or Claim 3, characterized in that said precipitated silica
20 suspension has a dry matter content in the range 16% to 24% by weight, in particular in the range 18% to 24% by weight.

5. Compound according to one of Claims 2 to 4, characterized in that the two phosphate precursors
25 of said phosphate are added to said precipitated silica suspension, each in the solid form or in the form of an aqueous solution, under conditions such that said

phosphate is formed, the precursor supplying the phosphate portion per se preferably being added first.

6. Compound according to Claim 1, characterized in that said suspension S is obtained by
5 mixing either a precipitated silica constituted by a filter cake from the reaction for precipitating said silica, or a suspension of precipitated silica preferably obtained by disintegrating a filter cake from the reaction for precipitating said silica, with a
10 phosphate selected from phosphates of elements from groups Ia or IIa of the periodic table of the elements and rare earth phosphates, and optionally disintegrating the mixture obtained.

7. Compound according to Claim 6,
15 characterized in that said suspension of precipitated silica has a dry matter content in the range 16% to 24% by weight, in particular in the range 18% to 24% by weight.

8. Compound according to Claim 6 or Claim
20 7, characterized in that said phosphate is added in the solid form, water also optionally being added.

9. Compound according to Claim 6 or Claim 7, characterized in that said phosphate is added in the form of a suspension.

25 10. Compound according to one of Claims 1 to 9, characterized in that said suspension S has a dry matter content in the range 16% to 24% by weight, in

particular in the range 18% to 24% by weight immediately before drying it.

11. Compound according to one of Claims 1 to 10, characterized in that said drying is carried out
5 using a nozzle atomizer.

12. Compound formed from precipitated silica and at least one phosphate selected from phosphates of elements from groups Ia or IIa of the periodic table of the elements and rare earth phosphates, said compound
10 being in the form of substantially spherical beads.

13. A compound according to one of Claims 1 to 12, characterized in that said phosphate is selected from sodium, potassium, calcium, magnesium and rare earth phosphates.

14. Compound according to one of Claims 1 to 13, characterized in that said phosphate is a calcium phosphate, in particular a monocalcium phosphate (MCP), a dicalcium phosphate (DCP) or a tricalcium phosphate (TCP).
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15. Compound according to Claim 14, characterized in that said calcium phosphate is a monocalcium phosphate (MCP) or a dicalcium phosphate (DCP).
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16. Compound according to one of Claims 1 to 15, characterized in that it has a phosphate content of at least 10% by weight, preferably at least 20% by weight.
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17. Compound according to one of Claims 1 to 16, characterized in that it has a phosphate content in the range 20% to 60% by weight, in particular in the range 20% to 50% by weight.

5 18. Compound according to one of Claims 1 to 17, characterized in that it has a tamped packing density (TPD) of more than 0.29.

19. Compound according to one of Claims 1 to 18, characterized in that it has a DOP oil uptake of
10 more than 170 ml/100g, in particular more than 210 ml/100g.

20. Compound according to one of Claims 1 to 19, characterized in that it has a DOP oil uptake that is higher than the DOP oil uptake of the composition
15 obtained by dry mixing said precipitated silica in the solid form and said phosphate in the solid form.

21. Compound according to one of Claims 1 to 20, characterized in that it has a pore volume (V_{d1}) constituted by pores with a diameter of less than 1 μm
20 of at least 1.2 cm^3/g , in particular at least 1.3 cm^3/g .

22. Compound according to one of Claims 1 to 21, characterized in that it has a BET specific surface area that is generally in the range 60 m^2/g to 250 m^2/g , in particular in the range 90 m^2/g to 200 m^2/g .

25 23. Compound according to one of Claims 1 to 22, characterized in that it has a Carr index of less than 0.1.

24. Compound according to one of Claims 1 to 23, characterized in that it has:

- a wear resistance R_{wr2} of at least 60%,
in particular at least 80%; and/or
- 5 • a wear resistance R_{wr5} of at least 50%,
in particular at least 55%; and/or
- a wear resistance R_{wr10} of at least 15%,
in particular at least 17%.

25. Compound according to one of Claims 1 to 10 24, in which said compound is in the form of solid substantially spherical beads.

26. Compound according to one of Claims 1 to 25, in which said compound is the form of substantially spherical non powdery beads.

15 27. Compound according to one of Claims 1 to 26, in which said compound is in the form of substantially spherical beads with a median diameter d_{50} of at least 80 μm , preferably at least 100 μm .

28. Conditioned composition comprising at 20 least one liquid absorbed on a support, characterized in that said support is formed by the compound according to one of Claims 1 to 27.

29. Composition according to Claim 28, characterized in that said composition has a liquid 25 content of at least 50% by weight, in particular in the range 50% to 70% by weight.

30. Composition according to one of Claims 28 or 29, characterized in that said liquid is a liquid additive, in particular a liquid animal foodstuff complement.

5 31. Composition according to one of claims 28 to 30, characterized in that said liquid is vitamin E, vitamin E acetate or choline hydrochloride.

32. Use of a compound according to one of Claims 1 to 27 as a liquid support, in particular for a
10 liquid additive such as a liquid animal foodstuff complement.

33. Use according to Claim 32 as a support for a liquid additive, in particular a liquid animal foodstuff complement, and simultaneously as a
15 nutritional additive for animals.

34. Use according to Claim 32 or Claim 33, characterized in that said liquid is vitamin E, vitamin E acetate or choline hydrochloride.

35. Use of a compound according to one of
20 Claims 1 to 27 as an anticaking agent, said compound preferably having been milled in advance.

36. Use of a compound according to one of Claims 1 to 27 as a liquid atomization processing aid, a solid milling processing aid, a pelletizing and/or
25 tableting aid, said compound preferably having been milled in advance.

37. Use according to Claim 35 or Claim 36, simultaneously with use as a nutritional additive for animals.